The Premier Advanced Recording Technology Forum

THIC Inc.

Super DLTtape™ Technology
- *"Extending the Standard"*

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Agenda

- Extending the Standard - *Focus of Super DLTtape™ Development*
- Super DLTtape Enabling Technologies
- Super DLTtape Product Family

Super DLTtape – Extending the Standard

- Best-in-Class Data Reliability for Business Critical Data Protection Applications
- Investment Protection for DLTtape Customers - Current and Future
- A Unified Set of Technology Components Capable of Supporting Up to Four Generations of Capacity and Performance Growth - Up to 1 TB and 100 MBS Native
- Building on 7 Generations of DLTtape Products
- Over 1.5 Million Drives Installed
- Over 50 Million Cartridges Shipped

Super DLTtape Products

Technology Platform Goals

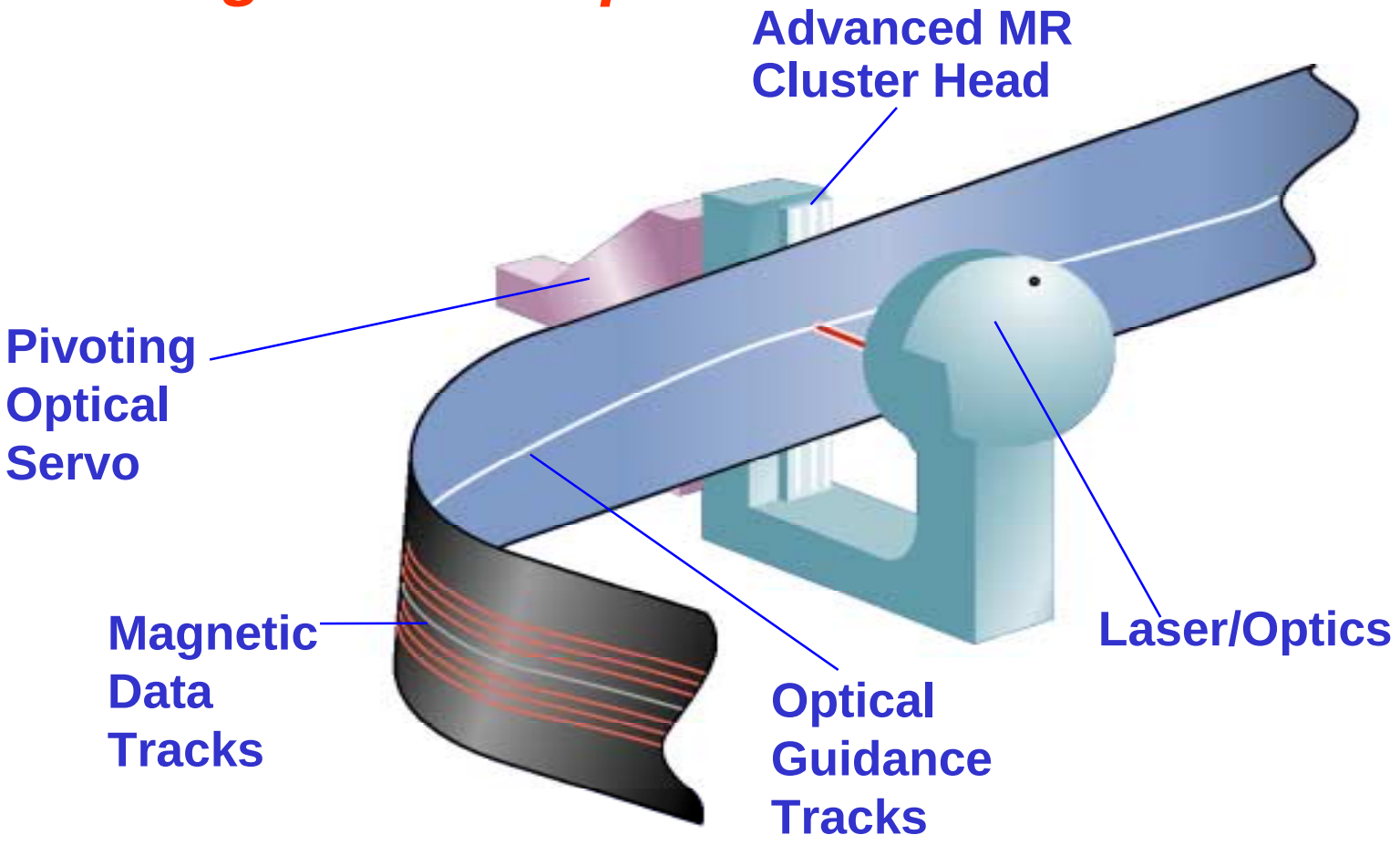
- Starting at Greater Than 100GB
- More than 10MB/sec data transfer rate
- Up to one terabyte and 100 MB/sec (native) over multiple generations
- Time to data: 15 seconds nominal
- Backward Read Compatibility to DLT4000, DLT 7000 and DLT 8000

Super DLTtape Enabling Technologies

- Laser-Guided Magnetic Recording with Pivoting Optical Servo
- Magneto Resistive Cluster Heads
- Partial Response Maximum Likelihood (PRML) Channel Technology
- Advanced Cartridge and Media
- Modular “Plug and Play” Design
- DLTtape IV Read Compatibility

Laser Guided Magnetic Recording

Super DLTtape Combines
the best of Magnetics & Optics



LGMR Benefits

- Servo data is indelible - tracks cannot be magnetically erased
- 100% of the media area and head elements are used for recording
- Three-hologram beam system for reliability
- Utilizes 10% of demonstrated capability of optical tracking (compare to CDROM or DVD)

Magneto Resistive Cluster Heads

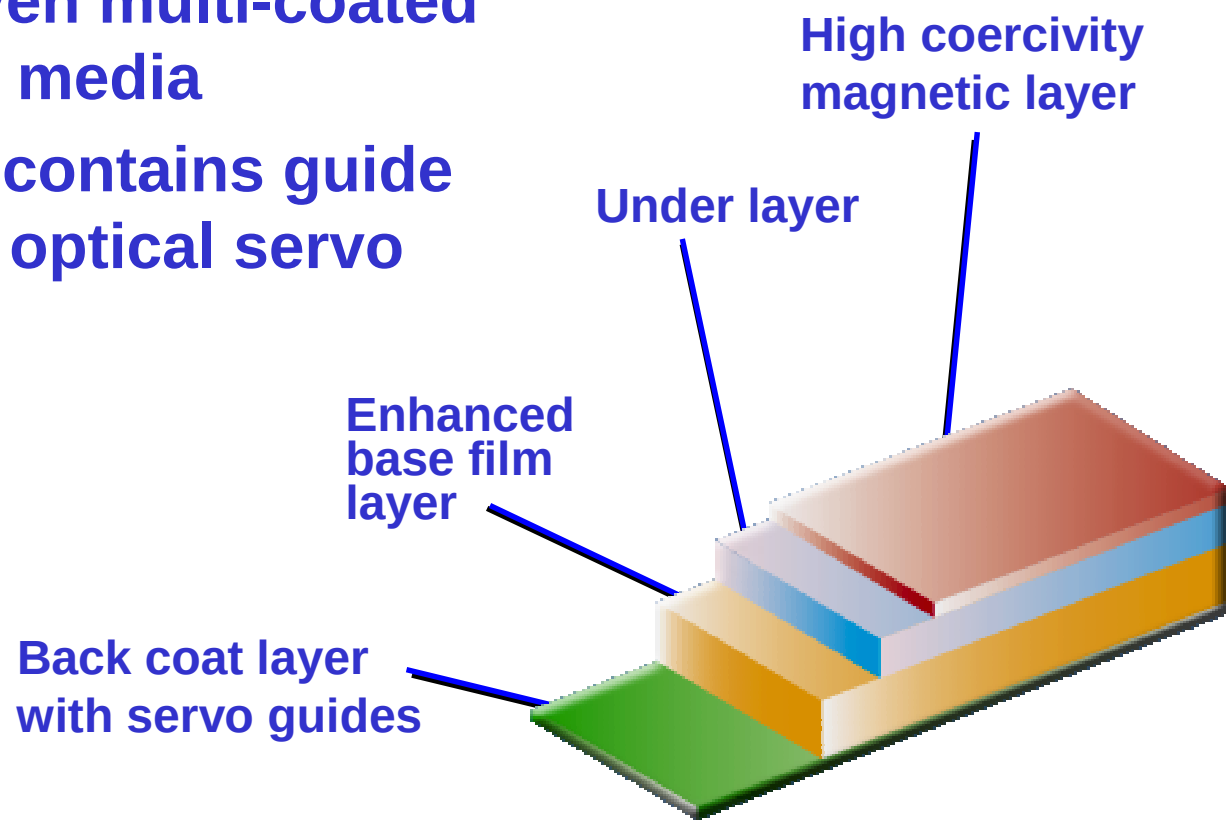
- Precision track alignment assured by thin film manufacturing process
- Less sensitivity to media variations (high reliability and extensibility)
- Supports developing even greater transfer rates in future Super DLTtape products

High Efficiency PRML Channel

- An advanced Partial Response Maximum Likelihood channel co-developed by Quantum and Lucent Technologies
- Extends PRML channel technology to high-performance tape drives
- Provides higher encoding efficiency and bit densities for greater capacity *and* performance
- Enables Super DLTtape to substantially increase data transfer rate and capacity

Advanced Metal Powder Media

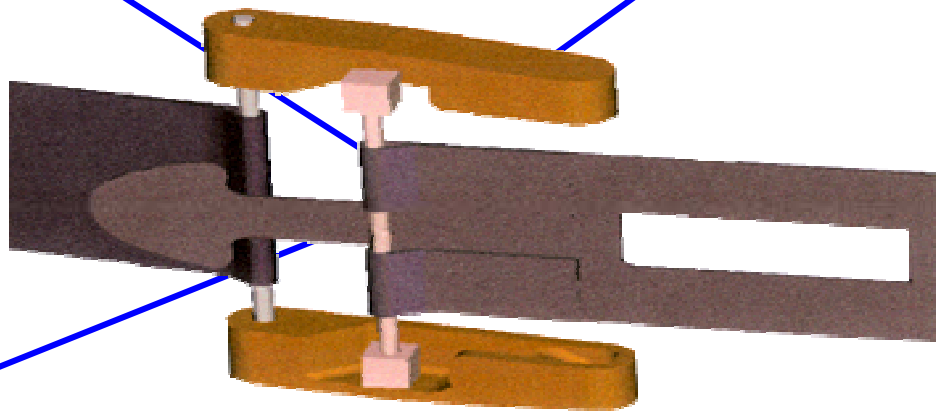
- Advanced technology supports multiple generations of Super DLTtape products
- Reliable, proven multi-coated Metal Particle media
- Back coating contains guide tracks for the optical servo



Super DLT Positive Buckling System

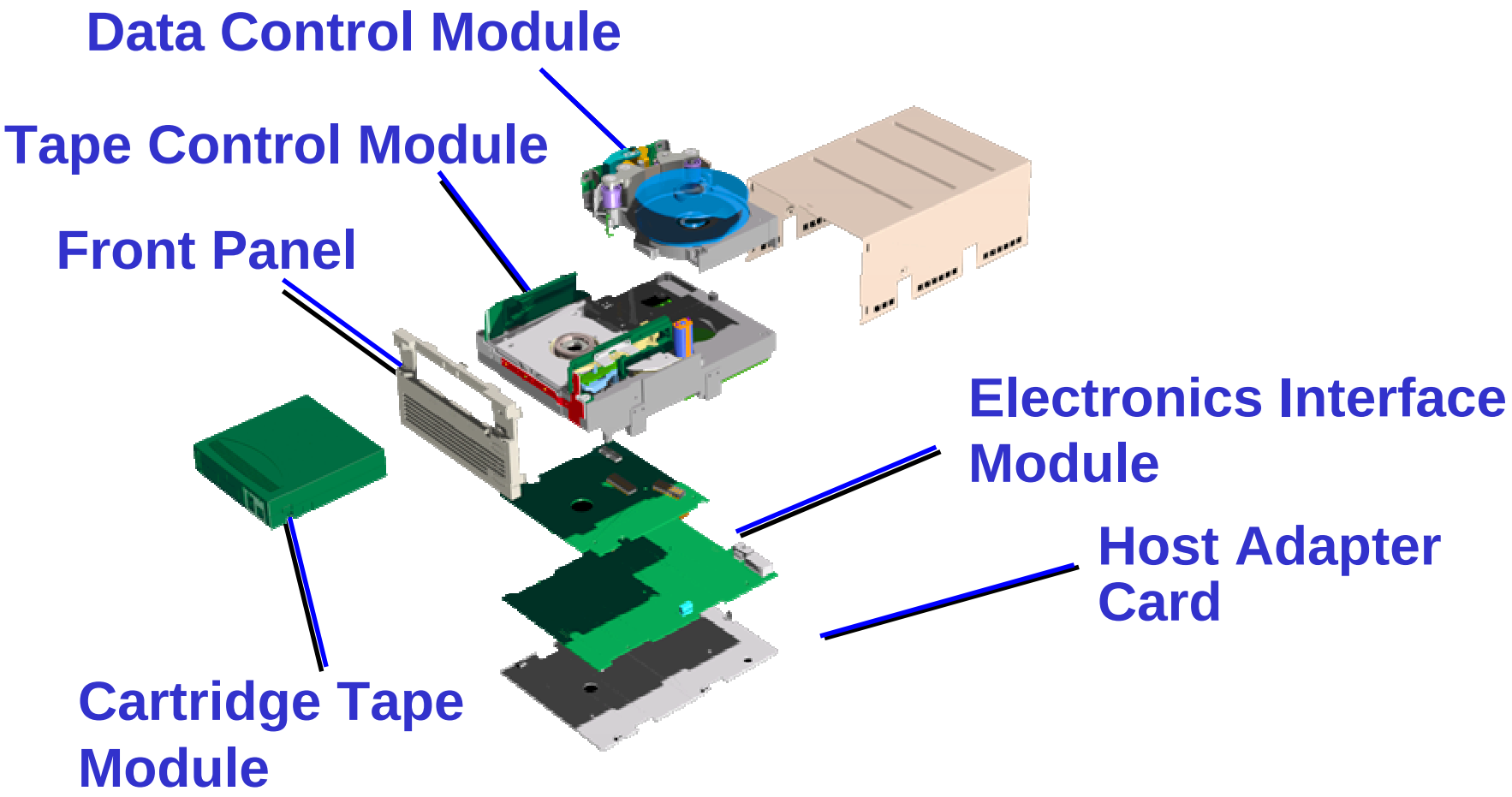
Super DLTtape Drive Buckle Link

Super DLTtape
Media Buckle



DLTtape Buckle Link
(for backward compatibility to DLTtape IV)

Super DLTtape Modular Design



Backward Read Compatibility

- Super DLTtape architecture provides backward compatibility to previously recorded DLTtape IV cartridges
  - Read compatible with DLT 4000 / DLT 7000 / DLT 8000 formats
  - Read compatible with DLT1 format from Benchmark Tape Systems

Super DLTtape Product Family

Announced Sept. 26th (non-BRC version)

- 110 GB (Native)
- 11MB/sec data transfer rate (Native)

Available by December (BRC version)

- 110 GB (Native)
- 11MB/sec data transfer rate (Native)

CY2001 Super DLTtape Products

- 80 GB @ 8 MB/sec (Native)
- 110 GB @16+ MB/sec (Native)